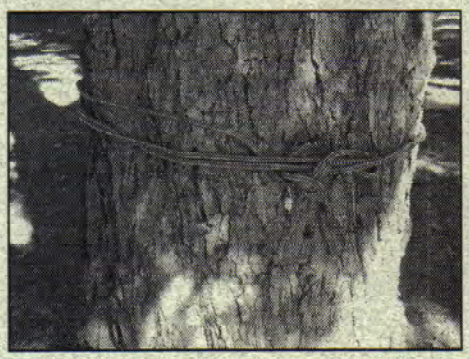
BURL BANDITS

Several tree wardens have recently reported thefts of burls from public trees, especially in park areas. A burl is a tree growth in which the grain has grown in a deformed manner. It commonly occurs on a tree trunk or branch as a rounded outgrowth filled with small knots.

Several incidents have been reported to police, who say it is likely there are others that have gone unreported or undetected. An incident in Hall's Pond in Brookline this past summer was at first believed to be an isolated case. However, a second incident was discovered recently at the Brookline Reservoir by Tree Warden Tom Brady. Brady reported an ArborPlex climbing rope was attached to a very old sugar maple, a tree with a landscape value possibly as high as $120,000. The rope is a type used by professionals in the tree industry and valued at $260. The suspect used the rope to climb approximately 30 feet high and removed two burls from the tree, one on either side of the central leader.



Boston Tree Warden Greg Mosman reported that there have been numerous incidents in the City, including in the Riverway and Franklin Park. Boston Parks is preparing a press release to notify the public of these incidents. Tree Warden Chris Hayward reported similar burl thefts from trees in Watertown's Arsenal Park.

Tree wardens are urged to report such incidents to their local police and to educate their residents to be on the alert for this unauthorized activity. John Parry, Urban Forester with the USDA Forest Service in Durham, NH, suggests that tree wardens also do their best to document the burl theft incidents by taking a high quality picture of the cut and measuring its diameter. If there is a stub left and if it is possible to do so without further damaging the tree, obtain a wood sample by slicing a tree cookie. These steps will create some evidence for identification if the burl, or a craft product made from it, ever appears. If it is a particularly old or

THE BIOLOGY OF BURLS

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So what is a burl, anyway? A burl is the result of hyperplasia, a greatly abnormal proliferation of xylem production by the vascular cambium. That abnormal growth is mediated by changes in plant growth hormones. The proliferation is highly localized and not only are the cambial cells dividing more rapidly and for a longer period of time in the growing season, the orientation of the divisions is irregular. That is what helps to produce the visually interesting and dense figure in the wood and to enhance the value for crafts. Both the hyperplasia and the disordered orientation are attributed to a number of factors (infection by bacteria, virus, fungi, maybe some insect infestation), but there is not yet a good way to induce burl formation.

Removing large burls causes a large, more or less shallow stem wound (or branch wound, depending on the position of the burl). Compartmentalization definitely plays a role to resist the loss of function and the spread of infection from the wound. Unlike branches, burls do not have native chemical protection at that their base with the stem. So the effect of removing the burl would be pretty similar to "skinning" the stem as with heavy machinery along that face, making a wound of similar size. So not a good thing to do to the tree.

Burl removal likely causes the tree to become infected through the wound, leading to stem decay. The rate of spread of decay depends especially on the condition of the tree at the time of injury. If the tree was vigorous and had good reserves of stored energy, wound wood could eventually close over that injury, over a period of years. During that extended period, before the wound closed and after, decay would likely proceed.

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